

Association of education and marital status with normal weight metabolic obesity in men residing in Minoodar district, Qazvin

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*Abstract

Background: Individuals with metabolic obesity but normal weight (MONW) are frequently undetected because of their normal body mass index (BMI). Therefore, it is important to identify factors associated with MONW.

Objective: The aim of this study was to determine the association of education and marital status with normal weight metabolic obesity in men.

Methods: This cross sectional study was conducted in 232 men with a BMI less than 25 kg/m² in Qazvin, Iran from September 2010 to April 2011. MONW was defined as insulin resistance (IR) in subjects with BMI less than 25 kg/m². IR was determined using the 80th percentile of the homeostatic model assessment (HOMA) in normal subjects. Education was classified into four categories (1: elementary school or illiterate, 2: secondary or high school, 3: diploma and associate degree, and 4: Bachelor of Science and higher). Data were analyzed using T-test, Mann Whitney U test, logistic regression analysis and analysis of covariance.

Results: Of 232, 78 subjects (32.6%) had MONW. The second to fourth categories of education were associated with 6.2, 8.3, and 6.7-fold increased risk of MONW compared to the first category. Marriage frequency was 97.5%, 68.6%, and 41% in the first, third and fourth category, respectively. After adding marital status as covariate, there were no significant differences between the categories in mean HOMA-IR.

Conclusion: With regards to the results, MONW was more probable in men with higher level of education and unmarried men.

Keywords: Insulin Resistance, Education, Marital Status, Body Mass Index

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